

**UNITED STATES DEPARTMENT OF COMMERCE****Patent and Trademark Office**Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/988,537	12/10/97	ISHIBASHI	K 018775-718

LM02/0818  
BURNS DOANE SWECKER & MATHIS  
PLATON N MANDROS  
PO BOX 1404  
ALEXANDRIA VA 22313-1404

EXAMINER  
AWAD, A

ART UNIT	PAPER NUMBER
2775	<input type="checkbox"/>

DATE MAILED: 08/18/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

<b>Office Action Summary</b>	Application No. <b>08/988,537</b>	Applicant(s) <b>Ishibashi et al.</b>
	Examiner <b>Amr Awad</b>	Group Art Unit <b>2775</b>

Responsive to communication(s) filed on Dec 10, 1997.

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-19 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-19 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 7

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2775

### **DETAILED ACTION**

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### ***Information Disclosure Statement***

2. The references listed in the Information Disclosure Statement filed February 9, 1998 have been considered by the Examiner; see attached PTO-1449.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata (US patent NO 5,579,026) in view of Hirano et al (US patent No. 3,812,489; hereinafter referred to as Hirano).

Tabata (figures 1-2) teaches an image observation apparatus (head mounted display ) including a main body (1) which has an image display device (7R and 7L); an operational member (controller (11)) which is operated manually in order to give instruction to the image observation device; a detector for detecting a posture of the main body; and a controller (part of the controller

Art Unit: 2775

(11)) for controlling an image which is displayed on the image display device in response to a signal which is output from the detector; see abstract, column 3, lines 50-63 and column 5, lines 19-55.

Tabata does not teach an embodiment wherein the controller part is provided on the main body. Tabata does not teach that the controller stops controlling the image which is displayed on the image display device when the operational member is operated.

Hirano teaches desk top calculator includes a display device which displays the numerical information (as it is well known the calculator has a display that is connected to the operational keys). Hirano teaches having the controller (the display controller) stops controlling the image displayed when the operational member (operational keys of the calculator) is operated (for that Hirano teaches that the controller stops displaying for a predetermined period of time after one of the operational keys is being operated; see column 4, lines 34-60, the abstract and column 2, lines 9-13.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use Hirano's teaching of having the display suspended when an operational key is operated to Tabata's device so as motivated by Hirano, to minimize the power consumption of the device; see column 2, lines 9-13.

5. Claims 5-8, 12-13 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata in view of Tonosaki (US patent NO. 5,635,948).

Art Unit: 2775

As to claims 5, 12 and 18-19, Tabata (figures 1-2) teaches an image observation apparatus (head mounted display) including a main body (1) which has an image display device (7R and 7L); an operational member (controller (11)) which is operated manually in order to give instruction to the image observation device; a detector (the second detector) for detecting a posture of the main body (see figure 10); and a controller (part of the controller (11)) for controlling an image which is displayed on the image display device in response to a signal which is output from the detector (second detector); see abstract, column 3, lines 50-63 and column 5, lines 19-55.

Tabata does not teach a first detector which is provided in the main body and which detects that a user observes an image being displayed on the image display device. Tabata does not teach the controller stops controlling the image being displayed on the image display device when the first detector detects that the user does not observe the image the image being displayed on the image display device.

Tonosaki (figure 1) teach a head mounted display that includes a detector (first detector) for detecting whether or not the observer is observing the display device; see abstract. Tonosaki teaches a controller for controlling the image being displayed and wherein the controller stops controlling the image being displayed on the image display device when the first detector detects that the user does not observe the image being displayed on the image display device; see column 1, line 65 through column 2, line 9.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Tonosaki's teaching of controlling the image displaying based on

Art Unit: 2775

whether or not the observer is observing the display device to Tabata's device so as motivated by Tonosaki, to prevent waste of power dissipation thereby effectively using a limited power supply capacity for effective long time; see column 1, lines 46-53.

As to claims 6-8 as seen from the flow charts of figure 3A and 3B that Tonosaki teaches a software instruction is given to the display device to allows or prohibits a control of the image (for that Tonosaki teaches an instruction to turn the power off in case the observer is not detected).

As to claim 13, since Tabata teaches detecting the posture of the display device, therefore, the claim is broad enough that detecting whether the main body is put on the rest or not can be broadly reads on the detecting device detecting the posture (position) of the device.

6. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata and Hirano as applied to claim 1 above, and further in view of Takasu Tomoji (Japanese patent Publication NO. 03056923A; hereinafter referred to as Takasu) (provided by the Applicant in the information disclosure statement).

Note the discussion of Tabata and Hirano above. Tabata and Hirano do not expressly teach a camera which forms the image which displayed on the image display device (image forming device) (claim 4) and wherein the controller controls the image which is displayed thereon by controlling the posture of the camera.

Art Unit: 2775

Takasu (figure 1) teaches a head mounted display device wherein the a camera which forms the image which displayed on the image display device (image forming device) (claim 4) and wherein the controller controls the image which is displayed thereon by controlling the posture of the camera; see abstract.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Takasu's teaching of having a camera to form the displayed images and wherein the controller controls the image by controlling the posture of the camera to Tabata's modified device so as motivated by Takasu, to avoid manually controlling the viewing direction.

7. Claims 9-11 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tabata and Tonosaki as applied to claim 5 above, and further in view of Takasu.

Note the discussion of Tabata and Tonosaki above. Tabata and Tonosaki do not expressly teach a camera which forms the image which displayed on the image display device (image forming device) (claims 11 and 16) and wherein the controller controls the image which is displayed thereon by controlling the posture of the camera.

Takasu (figure 1) teaches a head mounted display device wherein the a camera which forms the image which displayed on the image display device (image forming device) (claims 11 and 16) and wherein the controller controls the image which is displayed thereon by controlling the posture of the camera; see abstract.

Art Unit: 2775

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate Takasu's teaching of having a camera to form the displayed images and wherein the controller controls the image by controlling the posture of the camera to Tabata's modified device so as motivated by Takasu, to avoid manually controlling the viewing direction.

*Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Turner (US patent NO. 4,979,641) teaches a computerized Beer dispensing system.

Kurosu et al. (US patent NO. 5,081,449) teach a method and apparatus for displaying image information.

Torizuka et al (US patent NO. 5,825,340) teach a head mounted image display apparatus with a left and right shutoff switches.

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, (for formal communications intended for entry)

**Or:**

Art Unit: 2775

(703) 308-6606, (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

hand-delivered responses should be brought to Crystal Park II, 2121 Crystal  
Drive, Arlington, VA., Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner  
should be directed to Amr Awad whose telephone number is (703) 308-8485. The examiner can  
normally be reached on Monday--Friday from 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Steven Saras, can be reached on (703) 305-4718.

*Amr A. Awad*

Patent Examiner

August 15, 1999.

*Dennis-Doon Chow*  
DENNIS-DOON CHOW  
PRIMARY EXAMINER